

Commissioner for Patents

Serial No. 10/099,959

REMARKS

Claims 15 to 23 and 33 are in the case.

Election/Restriction

In response to paragraphs 15 to 19, applicant affirms the election previously made by telephone and that claims 24 to 31 are to be considered withdrawn from consideration. Applicant maintains the right to file a further application for the subject matter of withdrawn claims 24 to 31.

Claim Rejections – 35 USC § 112

In response to paragraphs 20 and 21, claim 15, the sole independent claim, has been modified to incorporate therein the subject matter of claim 32 reciting the weight average and number average molecular weight of the methacrylic acid polymer and further qualifying the term "semi-soluble".

No objection was raised to claim 32, and thus it is assumed that the Examiner finds the language of claim 32 acceptable, and the amendment should overcome the objection to claim 15.

Furthermore, essentially the same objection was raised in the parent application Serial No. 09/465,265, now U. S. Patent 6,395,655, and the same amendment was made in the independent claim 1 of that application to overcome the same objection.

Thus, it is believed that the objection under 35 USC § 112 is overcome.

Claim 32 has been cancelled as being redundant with the amendment of claim 15.

Claim Rejections – 35 USC § 102

In paragraph 22, claims 15 to 18 are indicated as anticipated by Elgarhy et al, 5,457,259, and in paragraph 23, claims 15 to 18 are indicated as anticipated by Elgarhy, 5,736,468. No rejection under 35 USC § 102 was made to claim 32. As noted above, in response to the rejection under 35 USC § 112, claim 15, the sole independent claim, now includes the language of claim 32 which was not rejected under 35 USC § 102. This amendment overcomes the rejection under 35 USC § 102.

Furthermore, essentially the same rejection was made to the claims in the parent application Serial No. 09/465,265, now U. S. Patent 6,395,655, and was overcome by the same amendment.

Commissioner for Patents

Serial No. 10/099,959

Elgarhy et al, U. S. Patent 5,457,259, fails to teach polymer b) as now set forth in claim 15. Similarly, Elgarhy et al fails to teach the additional polymer as set forth in claims 20, 22, and 33.

Elgarhy et al, U. S. Patent 5,457,259, is itself concerned with partially sulfonated, partially phosphated resol resins as noted by the Examiner. The resins described are **not** sulphones. The present invention is expressly concerned with sulphones.

As noted by the Examiner, Elgarhy et al, U. S. Patent 5,457,259, does acknowledge prior Novolak type resins based on sulphones, and also acknowledges the use of acrylics with such resins as described in U. S. Patent 4,822,373 (acknowledged at page 3 of the present specification). However, these acrylics are described as being largely removed after wet cleaning.

In the present invention, the polymer b) is not removed by wet cleaning processes and is not described in Elgarhy et al, U. S. Patent 5,457,259 (as acknowledged by the Examiner by absence of an objection to claim 32) and likewise is not described in U. S. Patent 4,822,373.

As a result of the amendment, claim 15 is novel and thereby all dependent claims are also novel.

In paragraph 23, claims 15 to 18 stand rejected under 35 USC § 102 in view of Elgarhy, U. S. Patent 5,736,468.

No objection as to novelty was raised based on claim 32.

Claim 1, as amended, has novelty over Elgarhy, U. S. Patent 5,736,468 for the same reason as described above with respect to Elgarhy et al, U. S. Patent 5,457,259.

The rejections under 35 USC § 102 should thus be withdrawn.

Claim Rejections – 35 USC § 103

In paragraphs 24 and 25, original claims 32 and 33 are rejected under 35 USC § 103 in view of Elgarhy et al, U. S. Patent 5,457,259.

Commissioner for Patents

Serial No. 10/099,959

As noted above, the subject matter of claim 32 is now set forth in claim 15.

It is acknowledged by the Examiner in paragraph 25 that Elgarhy et al, U. S. Patent 5,457,259, differs in that it does not state the high number average molecular weight of the methacrylic polymer.

It is indicated that it would be obvious to one of ordinary skill to optimize the number average molecular weights of Elgarhy, and that this would be routine in the art. It is indicated that adjusting ratios of components can be expected to show improvement of results.

The basis for this finding is not understood and is not supported by the teaching of Elgarhy et al, U. S. Patent 5,457,259.

Elgarhy et al, U. S. Patent 5,457,259, is totally silent as to number average molecular weights. The molecular weight ranges described in Elgarhy et al, U. S. Patent 5,457,259, are all weight average molecular weights, and the "acrylic" polymers described were all employed in conjunction with a **different** class of resin (a class which does not include sulphone units).

Furthermore, the Examples of Elgarhy et al, U. S. Patent 5,457,259, show that when the "acrylics" described therein were employed in conjunction with the resol resins, the stain resistance after "wet cleaning" was **inferior** when compared to use of the resol alone.

This is indicative that the acrylics employed in Elgarhy et al, U. S. Patent 5,457,259, were of the class generally employed in the art at the time and which were removed by wet cleaning so that they did not provide stain resistance after such cleaning (as described by reference to U. S. Patent 4,822,373).

Furthermore, it is noted that Elgarhy et al, U. S. Patent 5,457,259, employs, in each case, combinations of acrylics ranging from high weight average molecular weight to very low weight average molecular weight, and makes no distinction as to benefits of high weight average molecular weight acrylics over medium or low weight average molecular weight acrylics. As such, what direction is there to "optimize" the nature of the acrylic which could possibly arrive at the

Commissioner for Patents

Serial No. 10/099,959

polymers employed in the present invention which are of both high weight average molecular weight and high number average molecular weight? With respect to number average molecular weight, there is no guiding or teaching at all in U. S. Patent 5,457,259.

Furthermore, adjusting ratios of components or molecular weight ranges is just as likely to result in inferior results as improved results. The results by modifying one way or another cannot be predicted.

There is nothing in Elgarhy et al, U. S. Patent 5,457,259, to suggest the benefits achieved by the agents in the present invention, the benefits of which are demonstrated by the Examples in the present specification.

Reconsideration of the objection is requested.

In paragraph 26, claims 32 and 33 stand rejected under 35 USC § 103 in view of Elgarhy, U. S. Patent 5,736,468.

It is acknowledged by the Examiner that Elgarhy, U. S. Patent 5,736,468, is silent as to the high number average molecular weight of the polymer employed in the present invention.

It is indicated that it would be obvious to one of ordinary skill to optimize the number average molecular weights of Elgarhy.

With respect, Elgarhy, U. S. Patent 5,736,468, is expressly concerned with an invention, whereby the improvement involves the use of a methacrylic acid polymer or copolymer having a high number average molecular weight of 20,000 to 40,000. In contrast, the number average molecular weight required by the polymer in the present invention is 50,000 to 100,000, higher than and outside the range described by Elgarhy in U. S. Patent 5,736,468.

Furthermore, as to optimization, Elgarhy already teaches optimization of the range in his earlier patent. The broad range is described as 20,000 to 40,000 as indicated above, preferably 25,000 to 35,000, and more preferably 30,000 to 35,000. Based on the teachings of Elgarhy, 5,736,468, further optimization would presumably involve identification of a value within the narrower range of 30,000 to 35,000 indicated as being more preferred. Certainly, optimization based on the teaching of Elgarhy, 5,736,468, would not involve values outside the broad range taught by Elgarhy and remote from the preferred ranges taught by Elgarhy.

Commissioner for Patents

Serial No. 10/099,959

There is nothing in Elgarhy, U. S. Patent 5,736,468, which would direct a person in the art to selection of the number average molecular weight range of 50,000 to 100,000 and nothing that would suggest that improved results would be obtained by the use of such polymer with a class of resin (containing sulphone groups) which is different from the class of resin described by Elgarhy, U. S. Patent 5,736,468 (not containing sulphone groups).

Elgarhy, 5,736,468, and also Elgarhy et al, 5,457,259, are concerned with phosphated resins of a different class from those in the present invention. The resins in the present invention are of a different class being sulphones, and additionally are not phosphated.

In the light of the foregoing, reconsideration of the rejections under 35 USC § 103, directed to original claims 32 and 33 insofar as they might apply to the claims as now presented (the subject matter of claim 32 being incorporated in claim 15) is requested.

Double-Patenting

A double-patenting objection has been raised based on Elgarhy et al, U. S. Patent 5,756,407.

Without prejudice to the filing of a Terminal Disclaimer, it is believed that such is not required.

The claims of Elgarhy et al, U. S. Patent 5,756,407, all require a sulphonated, phosphated resol resin.

The description in Elgarhy et al, U. S. Patent 5,756,407, is essentially the same as that in Elgarhy et al, U. S. Patent 5,457,259 which has been considered above. The class of resin with which U. S. Patent 5,756,407 is concerned is different from that of the present invention more especially being partially sulphonated, partially phosphated resol resins which, as described, do **not** include sulphone groups. The teachings with respect to the methacrylic polymer are similar to those in U. S. Patent 5,457,259.

The test results in U. S. Patent 5,756,407 show that when the "acrylics" were employed in conjunction with the resol resin, the WS (after wet-cleaning stain

Commissioner for Patents

Serial No. 10/099,959

resistance) was in the unacceptable range (4 to 5). (See Table 2 in conjunction with Table 3, at column 10.)

Furthermore, these results were achieved with different acrylics ranging from high weight average molecular weight to low weight average molecular weight, and the results show no distinction in the WS values as between use of the resol with a high weight average molecular weight "acrylic" and a low weight average molecular weight acrylic.

U. S. Patent 5,756,407 is silent as to number average molecular weight. Since U. S. Patent 5,756,407 demonstrates no distinction in test results for WS as between acrylics with high weight average molecular weight and acrylics with low weight average molecular weight, or indeed with those of mid-range molecular weight, how can it direct the reader to an optimization in the high weight average molecular weight of the present invention, in conjunction with high number average molecular weight, not even described in U. S. Patent 5,756,407, for use in conjunction with a different class of resin?

With respect, U. S. Patent 5,756,407 can, in no way, suggest the present invention, and the present invention is in no way obvious in view of U. S. Patent 5,756,407. Furthermore, the invention does not reside in amounts of the components; it resides in the "nature" of the components being employed, and the components employed in the present invention are distinct from the components described in U. S. Patent 5,756,407.

In the light of the foregoing, reconsideration of the rejection based on obviousness-type double patenting is requested.

The objections raised to the claims in the Office Action are essentially the same as the objections raised to the claims that were prosecuted in the parent U. S. 09/465,265, now U. S. Patent 6,395,655. The claims in the present application have been amended in the same manner as the claims in the parent application and which resulted in allowance and thereafter issue of the patent on the parent application.

As such, it is believed evident that the present application is now in allowable condition.

The foregoing represents a full response.

Commissioner for Patents

Serial No. 10/099,959

The application is believed to be in condition for allowance, and early and favourable action would be appreciated.

Respectfully,

YASSIN M. ELGARHY

By:



Agent for the Applicant

Kevin P. Murphy

Regis. No. 26,674

OGILVY RENAULT

1981 McGill College Avenue

Suite 1600

Montreal, Quebec, Canada

H3A 2Y3

Tel. - (514) 847-4293